

(19)



Europäisches Patentamt

European Patent Office

Office européen des brevets



(11)

**EP 0 872 839 A2**

(12)

**EUROPEAN PATENT APPLICATION**

(43) Date of publication:  
21.10.1998 Bulletin 1998/43

(51) Int. Cl.<sup>6</sup>: **G11B 20/12**, **G11B 27/30**,  
**H04N 5/926**, **H04N 9/804**,  
**H04N 5/85**, **G11B 7/00**

(21) Application number: **98110317.9**

(22) Date of filing: **30.01.1996**

(84) Designated Contracting States:  
**AT BE CH DE ES FR GB IT LI LU NL SE**

(30) Priority: **30.01.1995 JP 13164/95**

(62) Document number(s) of the earlier application(s) in  
accordance with Art. 76 EPC:  
**96101282.0 / 0 724 264**

(71) Applicant:  
**KABUSHIKI KAISHA TOSHIBA**  
**Kawasaki-shi (JP)**

(72) Inventors:  
• **Kikuchi, Shinichi**  
**1-1 Shibaura 1-chome Minato-ku Tokyo 105 (JP)**  
• **Arafune, Takeo**  
**1-1 Shibaura 1-chome Minato-ku Tokyo 105 (JP)**

• **Kitamura, Tetsuya**  
**1-1 Shibaura 1-chome Minato-ku Tokyo 105 (JP)**  
• **Mimura, Hideki**  
**1-1 Shibaura 1-chome Minato-ku Tokyo 105 (JP)**  
• **Taira, Kazuhiko**  
**1-1 Shibaura 1-chome Minato-ku Tokyo 105 (JP)**  
• **Tamada, Yuzo**  
**1-1 Shibaura 1-chome Minato-ku Tokyo 105 (JP)**

(74) Representative:  
**Henkel, Feiler, Hänzel**  
**Möhlstrasse 37**  
**81675 München (DE)**

Remarks:

This application was filed on 05 - 06 - 1998 as a  
divisional application to the application mentioned  
under INID code 62.

(54) **A recording medium on which data relating to a scene seen from different angles is recorded  
and a recording medium with synchronizing information**

(57) In a super density optical disk for storing video data, video data is compressed to packs defined in MPEG and trains of the packs are stored in an video object unit. The video object unit includes a navigation pack which is placed at the head of the pack train. In data cell, a plurality of video object units each being reproduced within a predetermined period are arranged and a cell playback information table describes a cell playback information which defines a playback order of the cells. The navigation pack has an area storing playback information for reproducing each video object unit and search information for indicating the relationship with other video object units. Specifically, the navigation pack contains control information including an angle information for indicating a start address of another video object unit storing playback/video data for a different scene which is contemporary with or preceding that for which the reproducible data is stored in the video object unit to which the navigation pack belongs, and additional control information including another angle information indicating a start address of a group of the video object units to be reproduced after the video object unit to which the navigation pack belongs. The data cells and the cell playback information table are stored in the optical disk.

**EP 0 872 839 A2**

(19)



Europäisches Patentamt

European Patent Office

Office européen des brevets



(11)

EP 0 737 009 A2

(12)

## EUROPEAN PATENT APPLICATION

(43) Date of publication:  
09.10.1996 Bulletin 1996/41(51) Int. Cl.<sup>6</sup>: H04N 5/92

(21) Application number: 96105576.1

(22) Date of filing: 09.04.1996

(84) Designated Contracting States:  
AT BE CH DE ES FR GB IT LI LU NL SE

(30) Priority: 06.04.1995 JP 81298/95

(71) Applicant: KABUSHIKI KAISHA TOSHIBA  
Kawasaki-shi, Kanagawa-ken 210 (JP)(72) Inventors:  
• Taira, Kazuhiko,  
c/o K.K. Toshiba  
Minato-ku, Tokyo 105 (JP)  
• Mimura, Hideki,  
c/o K.K. Toshiba  
Minato-ku, Tokyo 105 (JP)

- Kikuchi, Shinichi,  
c/o K.K. Toshiba  
Minato-ku, Tokyo 105 (JP)
- Kurano, Tomoaki,  
c/o K.K. Toshiba  
Minato-ku, Tokyo 105 (JP)
- Hagio, Takeshi,  
c/o K.K. Toshiba  
Minato-ku, Tokyo 105 (JP)

(74) Representative: Henkel, Feller, Hänzel & Partner  
Möhlstrasse 37  
81675 München (DE)

(54) A recording medium on which attribute information on the playback data is recorded together with the playback data and a system for appropriately reproducing the playback data using the attribute information

(57) The video data to be reproduced is stored in a file in a video title set (72) (VTS) secured in an information recording area on an optical disk. In the beginning area of the video title set (72) (VTS), video title set (72) information (VTSI) for managing the video title set (72) (VTS) is written. The video title set (72) information (VTSI) is provided with a table (VTSI\_MAT) for managing the video title set (72) information. In the table (VTSI\_MAT), the attributes peculiar to the video data

stored in the title set (72) (VTS) and the attributes peculiar to the audio streams and sub-picture streams to be reproduced together with the video data are written. By referring to the management table (VTSI\_MAT), the optimum playback conditions for the video data, audio streams, and sub-picture streams to be reproduced are set in a reproducing system.

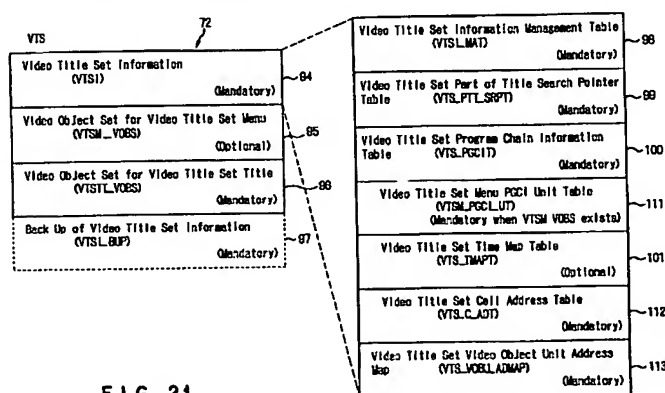


FIG. 21

EP 0 737 009 A2